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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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PHILIPS INTELLECTUAL PROPERTY & STANDARDS
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EXAMINER

ALBERTALLI, BRIAN LOUIS

ART UNIT	PAPER NUMBER
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2655

DATE MAILED: 08/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/944,300

Applicant(s)

SOUVIGNIER, BERND

Examiner

Brian L. Albertalli

Art Unit

2655

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on April 28, 2005 has been entered.

Response to Amendment

2. The amendments to the claims have been entered. Claims 1 and 4 are currently amended.

Specification

3. The objections to the specification are withdrawn.

Drawings

4. The amendments to the drawings overcome the objections made in the previous Office Action. The objections to the drawings are withdrawn.

Response to Arguments

5. Applicant's arguments filed April 28, 2005 have been fully considered but they are not persuasive.

The Applicant's arguments appear to hinge on the assertion that because Strong refers to as "a language model" in the singular, this precludes the evaluation of a word sub-sequence by a plurality of language models (see page 4, 2nd and 3rd paragraph of Applicant's arguments). The Examiner, however, maintains that language model used by Strong is generated from a plurality of language models, and thus, when a sub-sequence of words is evaluated it is done so using the plurality of language models used to generate the language model.

The Applicant continues to argue that a specific section of Strong (column 7, line 45 to column 8, line 14) does not disclose that a language model can be generated from a plurality of different language models (see page 4, 4th paragraph to page 5, 2nd paragraph of Applicant's arguments). However, this section of Strong was never proposed by the Examiner to teach the use of multiple language models. Rather, as stated in the Response to Arguments section of the previous Office Action (dated March 7, 2005) Strong teaches at column 8, lines 15-38 and in Fig. 7 the use of multiple language models. Even more specifically, column 8, lines 30-34 state, "When traversing LM3, path 704, through intermediate state 705 and remaining path 706, the numbers *which are a combination of matches of language models LM3 and LM1 may be recognized...*" (emphasis added). Therefore, Strong clearly teaches the use of multiple language models.

Independent claims 1 and 4 have been further amended to include the limitation that each of the plurality of language models is used to evaluate the word sub-sequence (i.e. every available language model). While the previously relied upon section of Strong (column 8, lines 15-38) does not meet this limitation, the use of every available language model is disclosed by Strong. Specifically, column 10, lines 9-22 disclose that one method for generating the language model uses *all* of the speech rules (which are each associated with their own respective language models) to generate the language model.

Therefore, the rejections made in the previous Office Action stand.

Claim Rejections - 35 USC § 102

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Strong (U.S. Patent 5,384,892).

In regard to claim 1, Strong discloses a speech system (Fig. 2, 200, Strong does not state that the system is a "dialogue" system, however, the examiner has not given any patentable weight to "dialogue", as none is recited in the claims) comprising a speech understanding unit (language model generator/interpreter 230) in which, for identifying a meaningful word subsequence from a recognition result (recognized words 221, column 5, lines 36-40) produced by a speech recognition unit (recognizer 220) which result was determined for a word sequence fed to the speech dialog system

(digitized sound signals 201), the word subsequence is evaluated by each available different speech models (language models 222). See column 4, line 56 through column 5, line 25 and column 10, lines 9-22.

In regard to claim 2, Strong discloses a general speech model and at least one theme specific speech model are provided for evaluating the word subsequence.

Strong discloses a set of language models (Figs. 4-6, LM1-3 and Figs. 11-12 LM6) that are theme specific speech models (column 7, line 45 through column 8 line 14 illustrates an example in which the theme is "numbers", while column 8, line 59 through column 9, line 22 illustrates an example in which the theme is "documents"). Each language model is constructed from a phrase list of words that can be recognized and their associated meanings (column 7, lines 16-44).

Additionally, Strong discloses that a general speech (language) model is constructed from a general (global) context rule set partition (Fig. 13, 1330). The elements are always active (column 12, lines 28-29 and lines 50-57).

In regard to claim 3, Strong discloses a theme specific speech (language) model (Figs. 11 and 12, LM6) to which a database ("Documents" directory, Fig. 8a, 801) with respective theme specific data material (file names 802-805) is assigned, which material is used for determining the semantic information contained in the word subsequence (which phrases will be in language model LM6).

LM6 is a dynamic language model that depends on the contents of the "Documents" directory 801. See Fig. 11. When a new file is added to the directory, such as "Memo 2" (Fig. 9a, 906), the language model, which determines the semantic information carried in the word subsequence, is updated to include "Memo2" (Fig. 12, column 8, line 48 through column 9, line 50).

In regard to claim 4, Strong discloses a method of extracting a significant word subsequence from a recognition result of a speech dialogue system, in which a word subsequence is evaluated with different speech models in a speech understanding unit of the speech dialog system (column 14, lines 10-58).

Several different speech models are included in the speech understanding unit (language model generator/interpreter 230) depending on the context of system (Fig 15, steps 1511 and 1513, column 14, lines 10-58). The word subsequence that matches speech rules defined by the speech models (Fig. 16, step 1605) is used to perform various scripts (1609), otherwise, if the input speech does not match any speech rule, the system returns to an idle state (1611, column 14, line 59 through column 15, line 14).

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Strong (U.S. Patent 6,311,157) discloses an identical disclosure to the Strong reference used in the rejections above. Strong (6,311,157) specifically

Art Unit: 2655


discloses each of the speech rules comprises a language model, and each language model is used to create the current language model (see Abstract). Thelen et al. (U.S. Patent 6,526,380) disclose a speech recognition system that uses a plurality of speech recognizer, each with their own language model, to identify a word sub-sequence.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian L. Albertalli whose telephone number is (571) 272-7616. The examiner can normally be reached on Mon - Fri, 8:00 AM - 5:30 PM, every second Fri off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on (571) 272-7582. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BLA 7/19/05


SUSAN MCFADDEN
PRIMARY EXAMINER